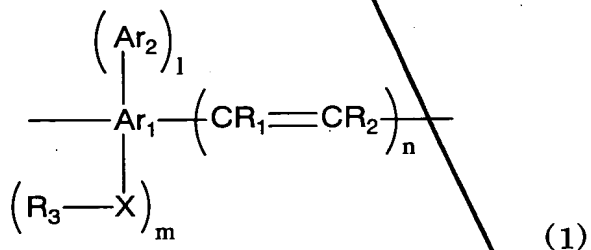


What is claimed is:

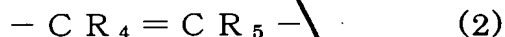
Sub B1  
1. A polymeric fluorescent substance exhibiting fluorescence in solid state, having a polystyrene reduced number-average molecular weight of  $5 \times 10^4$  to  $1 \times 10^8$ , and containing one or more repeating units of the following general formula (1) and one or more repeating units of formula (3), the total amount of the repeating units being 50 mol% or more based on the total amount of all repeating units, and the total amount of repeating units of formula (1) being from 0.1 mol% to 15 mol% based on the total amount of repeating units of formulae (1) and (3):



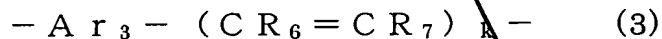
wherein, Ar<sub>1</sub> represents an arylene group having 6 to 60 carbon atoms contained in the main chain part or a divalent heterocyclic compound group having 4 or more and 60 or less carbon atoms contained in the main chain part thereof, Ar<sub>2</sub> represents an aryl group having 6 to 60 carbon atoms or a heterocyclic compound group having 4 to 60 carbon atoms,  $n$  represents an integer from 1 to 4, and  $m$  represents an integer from 1 to 4, provided  $1+m$  does not

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exceed the maximum possible number of substituents on Ar<sub>1</sub>. X represents an oxygen atom, sulfur atom or a group of formula (2). R<sub>3</sub> is selected from the group consisting of an alkyl group having 1 to 20 carbon atoms, an aryl groups having 6 to 60 carbon atoms, an arylalkyl group having 7 to 60 carbon atoms and a heterocyclic compound group having 4 to 60 carbon atoms, each of R<sub>1</sub> and R<sub>2</sub> independently is selected from the group consisting of a hydrogen atom, an alkyl group having 1 to 20 carbon atoms, an aryl group having 6 to 60 carbon atoms, a heterocyclic compound groups having 4 to 60 carbon atoms and cyano group, and n is 0 or 1,



wherein, each of R<sub>4</sub> and R<sub>5</sub> independently is selected from the group consisting of a hydrogen atom, an alkyl group having 1 to 20 carbon atoms, an aryl group having 6 to 60 carbon atoms, a heterocyclic compound groups having 4 to 60 carbon atoms and cyano group,



wherein, Ar<sub>3</sub> is an arylene group having 6 to 60 carbon atoms in the main chain part thereof or a heterocyclic compound group having 4 to 60 carbon atoms in the main chain part thereof, Ar<sub>3</sub> may have a substituent, however, does not simultaneously have substituents represented by -Ar<sub>2</sub> and -X-R<sub>3</sub> in the formula (1), each of R<sub>6</sub> and R<sub>7</sub>

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cont

Independently is selected from the group consisting of a hydrogen atom, an alkyl group having 1 to 20 carbon atoms, an aryl group having 6 to 60 carbon atoms, a heterocyclic compound group having 4 to 60 carbon atoms and cyano group, k is 0 or 1.

2. The polymeric fluorescent substance according to Claim 1, wherein repeating units of formula (1) and repeating units of formula (3) are present in the substance whereby when the absorption edge wavelength of a polymer containing only repeating units of formula (1) is represented by  $\lambda_1$  (nm) and the absorption edge wavelength of a polymer containing only repeating units of formula (3) in Claim 1 is represented by  $\lambda_2$  (nm), the following relation is satisfied:

$$1239/\lambda_2 \geq 1239/\lambda_1 + 0.050.$$

Sub A'

3. A polymer light emitting device, comprising a pair of electrodes composed of an anode and a cathode at least one of which is transparent or semitransparent, and at least one light emitting layer disposed between the electrodes, wherein the polymeric fluorescent substance of Claim 1 or 2 is contained in said light emitting layer.

4. The polymer light emitting device according to Claim 3, further comprising a layer containing an conducting polymer disposed between one electrode and the light emitting layer so that the layer containing an conducting

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H polymer is adjacent to said electrode.

5. The polymer light emitting device according to Claim 3, further comprising an insulation layer having a thickness of 2 nm or less disposed between one electrode and the light emitting layer so that the insulation layer is adjacent to said electrode.

6. The polymer light emitting device according to any of Claims 3 to 5, further comprising a layer comprising an electron transporting compound disposed between the cathode and the light emitting layer so that the layer comprising an electron transporting compound is adjacent to said light emitting layer.

7. The polymer light emitting device according to any of Claims 3 to 5, further comprising a layer comprising a hole transporting compound disposed between the anode and the light emitting layer so that the layer comprising a hole transporting compound is adjacent to said light emitting layer.

8. The polymer light emitting device according to any of Claims 3 to 5, further comprising a layer comprising an electron transporting compound and a layer comprising a hole transporting compound disposed between the cathode and the light emitting layer so that the layer comprising an electron transporting compound is adjacent to said light emitting layer, and the layer comprising a hole

transporting compound is adjacent to said light emitting layer.

9. A flat light source obtained by using the polymer light emitting device of any of Claims 3 to 8.

10. A segment display obtained by using the polymer light emitting device of any of Claims 3 to 8.

11. A dot matrix display obtained by using the polymer light emitting device of any of Claims 3 to 8.

12. A liquid crystal display obtained by using the polymer light emitting device of any of Claims 3 to 8 as a back-light.

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